

HW#1, question #1

. csi 477 522 19457 19420, exact or

	Exposed	Unexposed	Total	
Cases	477	522	999	
Noncases	19457	19420	38877	
Total	19934	19942	39876	
Risk	.023929	.0261759	.0250527	
	Point estimate		[95% Conf. Interval]	
Risk difference	-.0022469		-.0053147	.0008208
Risk ratio	.9141598		.8086936	1.03338
Prev. frac. ex.	.0858402		-.0333805	.1913064
Prev. frac. pop	.0429115			
Odds ratio	.9120554		.8043613	1.034168 (Cornfield)
1-sided Fisher's exact P = 0.0802				
2-sided Fisher's exact P = 0.1586				

HW#1, question #2

. cci 688 21 650 59, exact

	Exposed	Unexposed	Total	Proportion Exposed
Cases	688	21	709	0.9704
Controls	650	59	709	0.9168
Total	1338	80	1418	0.9436
	Point estimate		[95% Conf. Interval]	
Odds ratio	2.973773		1.755669	5.209292 (exact)
Attr. frac. ex.	.6637268		.4304165	.8080353 (exact)
Attr. frac. pop	.6440678			
1-sided Fisher's exact P = 0.0000				
2-sided Fisher's exact P = 0.0000				

. cci 647 2 622 27, exact

	Exposed	Unexposed	Total	Proportion Exposed
Cases	647	2	649	0.9969
Controls	622	27	649	0.9584
Total	1269	29	1298	0.9777
	Point estimate		[95% Conf. Interval]	
Odds ratio	14.0426		3.499078	122.1709 (exact)
Attr. frac. ex.	.9287881		.7142104	.9918147 (exact)
Attr. frac. pop	.9259259			

1-sided Fisher's exact P = 0.0000
2-sided Fisher's exact P = 0.0000

. cci 41 19 28 32, exact

	Exposed	Unexposed	Total	Proportion Exposed
Cases	41	19	60	0.6833
Controls	28	32	60	0.4667
Total	69	51	120	0.5750
	Point estimate		[95% Conf. Interval]	
Odds ratio	2.466165		1.100926	5.562471 (exact)
Attr. frac. ex.	.5945122		.0916737	.8202238 (exact)
Attr. frac. pop	.40625			

1-sided Fisher's exact P = 0.0131
2-sided Fisher's exact P = 0.0262

HW#1, question #3

(these separate `sampsi` command outputs are not necessarily in order of the questions asked in exercise #3 parts a and b: ie, don't just copy the results without paying attention to what output is appropriate for a given scenario)

```
. samps si .31 .26 , power(.8)
```

Estimated sample size for two-sample comparison of proportions

Test Ho: $p_1 = p_2$, where p_1 is the proportion in population 1
and p_2 is the proportion in population 2

Assumptions:

```
alpha = 0.0500 (two-sided)
power = 0.8000
p1 = 0.3100
p2 = 0.2600
n2/n1 = 1.00
```

Estimated required sample sizes:

```
n1 = 1319
n2 = 1319
```

```
. samps si .31 .21, power(.9)
```

Estimated sample size for two-sample comparison of proportions

Test Ho: $p_1 = p_2$, where p_1 is the proportion in population 1
and p_2 is the proportion in population 2

Assumptions:

```
alpha = 0.0500 (two-sided)
power = 0.9000
p1 = 0.3100
p2 = 0.2100
n2/n1 = 1.00
```

Estimated required sample sizes:

```
n1 = 423
n2 = 423
```

```
. sampsi .31 .21 , power(.8)
```

Estimated sample size for two-sample comparison of proportions

Test Ho: $p_1 = p_2$, where p_1 is the proportion in population 1
and p_2 is the proportion in population 2

Assumptions:

```
alpha = 0.0500 (two-sided)
power = 0.8000
p1 = 0.3100
p2 = 0.2100
n2/n1 = 1.00
```

Estimated required sample sizes:

```
n1 = 321
n2 = 321
```

```
. sampsi .31 .26 , power(.9)
```

Estimated sample size for two-sample comparison of proportions

Test Ho: $p_1 = p_2$, where p_1 is the proportion in population 1
and p_2 is the proportion in population 2

Assumptions:

```
alpha = 0.0500 (two-sided)
power = 0.9000
p1 = 0.3100
p2 = 0.2600
n2/n1 = 1.00
```

Estimated required sample sizes:

```
n1 = 1751
n2 = 1751
```